RAYMARK BULLETIN #22

July, 1999

Engineering Evaluation/Cost Analysis: Shore Road Study Area

This fact sheet describes the removal action alternatives considered and the one preferred by the U.S. EPA to address soil and subsurface soil contamination in the areas along Shore Road in Stratford, Connecticut.

Introduction

As part of the Superfund cleanup program for the Raymark disposal sites in Stratford, EPA is planning a removal of contaminated material in the Shore Road area beginning this fall.

Community input during the decision-making period is critical to selecting an alternative that not only cleans up the site and meets regulatory requirements, but also is acceptable to the affected communities.

This fact sheet provides an overview of the EE/CA document which is available in the reference section of the Stratford Public Library. EPA is accepting public comments on the cleanup plan from July 14 to August 12, 1999. You don't have to be an expert to comment. If you have a concern or preference, EPA and CTDEP want to hear it before making a final decision on how work should proceed to protect the community. Information about the ways to provide comment and a listing of who to contact for more information appear on page 3.

The EE/CA contains:

- An Executive Summary
- Site Characterization Summary
- Human Health Risk Evaluation
- Ecological Evaluation
- Removal Action Objectives
- Removal Action Alternatives

History of the Raymark Cleanup

The Raymark Facility on East Main Street in Stratford, Connecticut operated from 1919 to 1989. Raymark manufactured automotive and heavy brake friction components using asbestos, lead, copper, and a variety of adhesives and resins. As a result of manufacturing and waste-disposal practices, soils at the Raymark Facility became contaminated with many of these pollutants. Manufacturing wastes were routinely disposed of in low-lying areas at the Raymark Facility to create space for Raymark Facility expansions. In addition, Raymark routinely gave away its excess manufacturing wastes for use as fill within the Town of Stratford.

In 1993, the Federal Agency for Toxic Substances and Disease Registry performed a health assessment in Stratford and issued a Public Health Advisory for the Raymark Facility and locations around the Town of Stratford where Raymark waste had been deposited. In response, the U.S. Environmental Protection Agency (EPA) and the Connecticut Department of Environmental Protection (CTDEP) sampled numerous properties and sites in Stratford and removed waste material from the Raymark facility and various municipal, commercial, and residential areas. After these "removal actions," EPA and CTDEP began more detailed studies to identify appropriate cleanup solutions for the remaining contaminated areas. Shore Road is one of these areas.

Preliminary Cleanup Work at Shore Road

The Shore Road Study Area (see map, Page 4) is approximately 4 acres, and includes a 1,350-foot section of Shore Road, the Housatonic Boat Club, and a small portion of the eastern slope of the Shakespeare Theater property. In 1993, the CTDEP found elevated levels of asbestos, lead, and PCBs in the soil at this study area, and responded by capping the materials in place with a geotextile (a permeable plastic-like fabric designed to minimize soil erosion and dust) and 6 inches of wood chips. While this eliminated the immediate hazards posed by the contaminated soil, it was not intended to be a permanent solution.

Permanent Cleanup Needed

This temporary cap is now showing signs of wear caused by traffic, flooding, and erosion. Because the temporary cap is wearing out and increasing the likelihood of public exposure to contaminated soils at the Shore Road Area, EPA has decided to undertake a Non-Time-Critical Removal Action at Shore Road. This removal action is called "Non-Time-Critical" because there is more than 6 months' planning time available before on-site activities must be initiated. Despite the name, this action will result in a faster cleanup than if EPA had continued to work on Shore Road as part of the ongoing Superfund Remedial Investigation of the various Raymark disposal sites in Stratford.

Shore Road Engineering Evaluation/Cost Analysis

To conduct a Non-Time-Critical Removal Action, EPA must develop an Engineering Evaluation/Cost Analysis (EE/CA), a document that identifies contaminants and risks at the site, examines possible removal actions for the Shore Road Study Area, and presents EPA's recommended alternative. On July 9th, EPA formally released the *Draft Final Engineering Evaluation/Cost Analysis - Raymark-Shore Road.* This document is available for public review at the EPA information repository at the Stratford Public Library Reference Desk.

The Draft Final EE/CA determined that occasional recreational users exposed to the most polluted parts of the Shore Road Area would face an unacceptable level of risk if no action were taken to prevent their contact with contaminated soils. The EE/CA evaluated a variety of technological options for site cleanup, including no action, limited action, on-site containment, contaminant removal and disposal, and treatment. Several of these options were eliminated because they were technically impractical, because they would not fully comply with Connecticut or federal environmental protection regulations, or because they did not adequately eliminate all the risks posed by site contamination. For example, the No Action alternative was eliminated because it did not protect human health and the environment. Various forms of on-site soil treatment were also eliminated from consideration because they could not reduce the level of contaminants to safe levels. On-site containment was eliminated because frequent flooding at the site (it is in the Housatonic River's flood plain) could damage the impermeable containment cap, and because the construction of an on-site containment facility in a Coastal Management Area would violate Connecticut environmental regulations.

Description of Alternatives

The EE/CA carries forward three potential removal alternatives for further in-depth analysis. For each alternative, clean fill would be brought in and used to restore all areas to their original elevations along with additional restoration activities to return the area to its pre-excavation condition.

Each of these three alternatives is evaluated using two cost options: one for in-town temporary storage (with permanent in-town disposal cost and location to be determined at a later date) and one for out-of-town disposal. These three alternatives are:

1. Excavation of 2 or 4 feet of soil-waste/fill (depending on existing site conditions) and site restoration. The estimated volume of soil that would be removed is 22,600 cubic yards with an estimated cost of $3.8 million for in-town storage and $68.5 million for out of town disposal.

2. Excavation of 2 feet of soil-waste/fill and paving of entire Study Area and site restoration. The estimated volume of soil that would be removed is 12,700 cubic yards with an estimated cost of $3 million for in-town storage and $39 million for out of town disposal.

3. Excavation to a 5.5-foot depth (the depth to the groundwater table) and site restoration. The estimated volume of soil that would be removed is 34,786 cubic yards with an estimated cost of $5.3 million for in-town storage and $105 million for out of town disposal.

Based on a detailed analysis of these alternatives, EPA recommends Alternative 3 - excavation to a 5.5 foot depth with site restoration and in-town storage. This alternative is most protective of human health and the environment in the long term. It is the only one of the three evaluated alternative that addresses all of the Connecticut state regulations for site cleanup since excavation is down to the groundwater table. This draft recommendation will be reviewed by EPA, Connecticut regulators, and the public before a final option is selected.

The decision will be documented this September in an Action Memorandum which presents the selected alternative, explains the rationale for the selection, and provides responses to comments and concerns raised during the public comment period. Actual cleanup work would begin this fall.

More Information

More detailed information is available in the EE/CA. Copies of the EE/CA, as well as other information about the Raymark Superfund Site, are available for review in the reference section of the Stratford Public Library, 2203 Main Street, Stratford during normal library operating hours.

Learn More About EPA's Plan

EPA will describe the Shore Road EE/CA at a poster session which will be followed by a presentation with a formal hearing at a public meeting.

This public meeting and hearing will be held on:

Thursday, August 5 (location to be announced)
Poster session: 6:00 - 6:30 p.m.
Informational Meeting & Hearing 6:30 - 8:00 p.m.

What Do You Think?

There are two direct ways to provide formal comment on the plan:

1. Offer verbal comments during the public hearing to be held on August 5, 1999 or

2. Submit written comment during the public comment period that will extend from July 14, 1999 to August 12, 1999 to:

   Ron Jennings, Project Manager
   U.S. EPA Region 1
   1 Congress Street, Suite 1100 (HBT)
   Boston, MA 02114-2023

For More Information, please contact:

U.S. Environmental Protection Agency
EPA Toll Free (all staff): 1-888-372-7341

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Connecticut Department of Public Health
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Stratford Health Department
Elaine O'Keefe, Director
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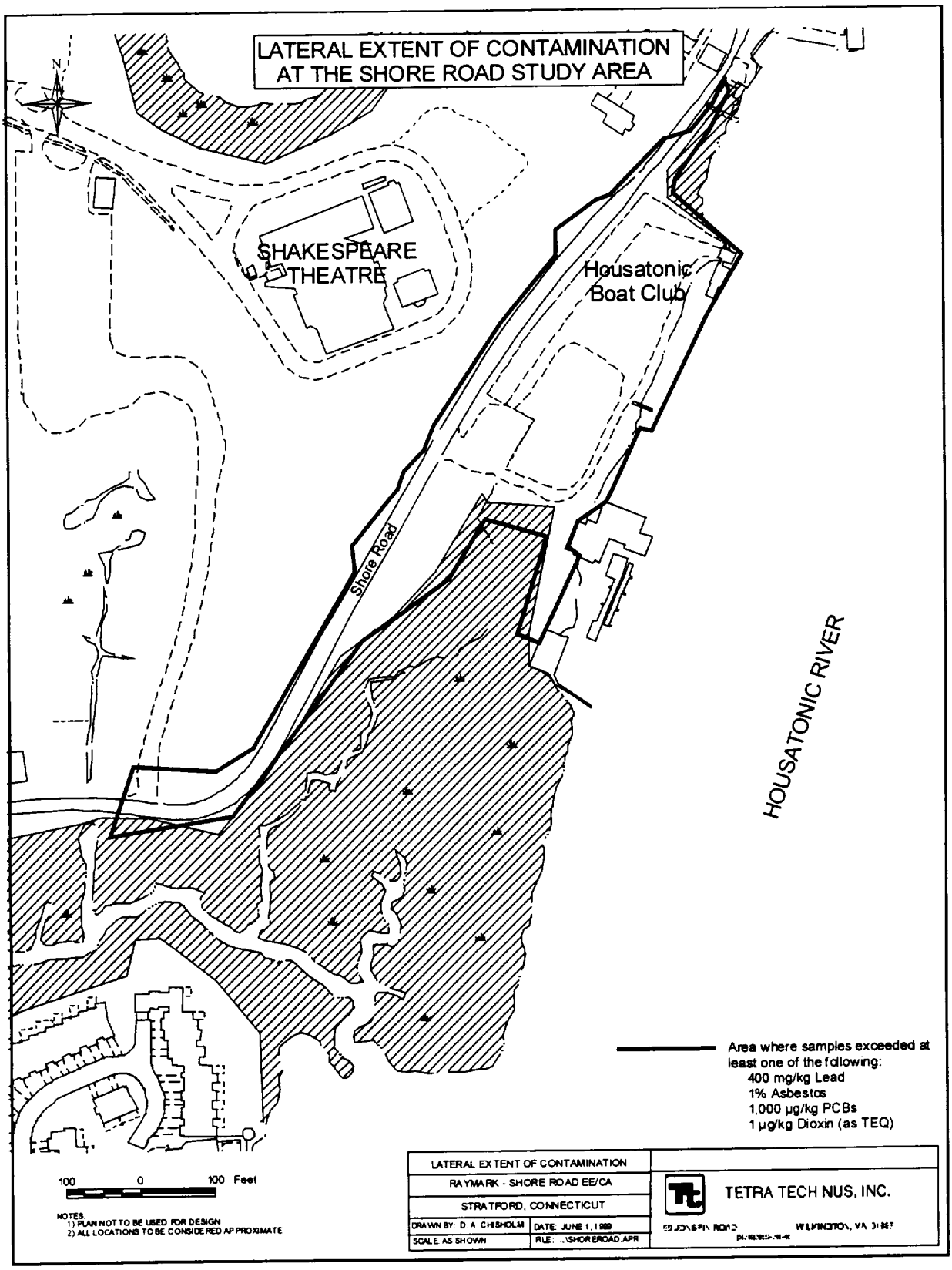
e-okeefe@earthlink.com


LATERAL EXTENT OF CONTAMINATION
AT THE SHORE ROAD STUDY AREA
N
SHAKESPEARE
THEATRE
Housatonic
Boat Club
Shore Road
HOUSATONIC RIVER
Area where samples exceeded at least one of the following:
400 mg/kg Lead
1% Asbestos
1,000 µg/kg PCBs
1 µg/kg Dioxin (as TEQ)
100 0 100 Feet
NOTES:
1) PLAN NOT TO BE USED FOR DESIGN
2) ALL LOCATIONS TO BE CONSIDERED APPROXIMATE
LATERAL EXTENT OF CONTAMINATION
RAYMARK - SHORE ROAD EE/CA
STRATFORD, CONNECTICUT
DRAWN BY: D. A. CHISHOLM
DATE: JUNE 1, 1999
SCALE: AS SHOWN
FILE: ..\SHOREROAD.APR
TETRA TECH NUS, INC.